



# Material Test Report

Heat Code: HHS

An Ameri-Forge Group Company

13770 Industrial Rd. Houston, TX 77015

ISO 9001:2000 Certified

Sales: (713) 868-4421 Fax: (713) 455-8366

PLESA ANAHUAC Y CIAS SA DE CV AV. VALLE DE LAS ALAMEDAS 66-0 54940 TULTITLAN, EDO, MEX	PO: 8379	Sales Order: 75369	Line: 16
	Item Code: 0603200100-0021F		Qty Shipped: 20
	Item Desc: FLG 02.00 0600 BL RF		
	Supplier: CMC		Supplier Heat: 3013638

Spec: ASTM A105/A105M-(10)/ASME SA 105/SA 105M-(08a) Section II Part A - Normalized

Element	(%wt)	Ladle	Product	EPCRA	CAS#	Element	(%wt)	Ladle	Product	EPCRA	CAS#
C	Carbon	0.23				Ni	Nickel	0.08		✓	7440-02-0
Mn	Manganese	1.06		✓	7439-96-5	Cr	Chromium	0.12		✓	7440-47-3
P	Phosphorous	0.022				Mo	Molybdenum	0.019			
S	Sulphur	0.025				V	Vanadium	0.002			
Si	Silicon	0.24				Cb	Columbium	0.003			
Cu	Copper	0.22		✓	7440-50-8	C.E.		0.45			

Mechanical Testing						Heat Treat					
Test Lab	AFG					Norm. Temp. (F)	1675				
Test Bar Size	Test Piece					Norm. (Hrs)	4.0				
HBW	170 - 170					Norm. Cooling Type	AIR				
Elg (%)	26.0					Norm. Location	AFG				
RA (%)	46.0					<b>Other</b>					
Tensile Specimen Size (in)	.246					MILL	CMC-TEXAS				
Tensile (ksi)	85.6					MHC	3013638				
Yield (ksi)	50.9					Country of Origin	USA				
Gauge Length	1					EF	Y				

Product compliant with NACE MR0175, latest edition and dimensions to ANSI B16.5  
 No Weld repair performed. Chemical Analysis results shown are actual. Forgings are capable of passing hydrostatic test compatible with the appropriate rating. Elongation taken from a round specimen. All material supplied under this order is certified to be free of mercury contamination and no mercury bearing equipment was used in manufacturing, fabrication or testing. Yield strength was determined using the 0.2% offset method. No welding performed.

EPCRA Supplier Notification: This product may contain one or more toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986) and 40 C.F.R. Part 372. Potentially reportable chemicals are indicated with checkmark in the "EPCRA" column and a Chemical Abstract Services (CAS) registry number is provided for each such chemical in addition to the percent by weight of the chemical present in this product. It is your responsibility alone to determine whether your facility is required to submit a Toxic Release Inventory Report under EPCRA Section 313.

Certification No.: 184951  
 Certification Date: 6/24/2010